

WE CLAIM:

1. A method for diagnosing the presence of procoagulant genetic and metabolic factors associated with activation of the coagulation response comprising:

- a. testing the blood of a patient to determine if one or more of the eight procoagulant factors cited is abnormal.

2. A method for diagnosing and treating the condition of a patient who has abnormal results in one or more of the procoagulant genetic and metabolic factors associated with activation of the coagulation response comprising:

- a. testing the blood of a patient to determine if activation of the coagulation response is present;
- b. testing the blood of the patient to determine if procoagulant genetic or metabolic factors are present;
- c. determining that there is activation of the coagulation response; and
- d. treating the patient using low dose anticoagulant therapy.

3. A method for diagnosing the presence of procoagulant genetic and metabolic factors associated with, or predispositional for, activation of the coagulation response comprising:

- a. utilizing a grouping of blood tests to determine if procoagulant genetic or metabolic factors are present;
- b. determining whether there is activation of the coagulation response in the patient;
- c. treating the patient using low dose anticoagulant therapy if indicated; or
- d. monitoring an asymptomatic person for the development of disorders associated with activation of coagulation.

4. The method of claim 3 wherein said grouping of procoagulant genetic and metabolic factor blood tests comprises:

- a. a test to determine the level of, activity of, or mutations in the gene

- for, or genes affecting the control or levels of protein C;
- b. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control or levels of protein S;
- c. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control or levels of antithrombin;
- d. a test to determine the level of activated protein C resistance, or mutations in the genes for factor V or protein C or other genes that modulate activated protein C resistance;
- e. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control and levels of prothrombin;
- f. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control and levels of plasminogen activator inhibitor-1;
- g. A test to determine the level of, or mutations in the gene for, or genes affecting the control and levels of lipoprotein (a);
- h. a test to determine the level of, or mutations in the genes affecting the control, metabolism and levels of homocysteine.

5. The method of claim 4 wherein a procoagulant state is diagnosed by an abnormality in one or more of said tests in said grouping of blood tests indicating the presence of procoagulant factors that are either concurrently present in a medical condition or may indicate a propensity for activation of the coagulation response and future development of said medical condition in the tested person.
6. The method of claim 5 wherein said condition is chronic fatigue syndrome.
7. The method of claim 5 wherein said condition is fibromyalgia.
8. The method of claim 5 wherein said condition is multiple sclerosis.

9. The method of claim 5 wherein said condition is gulf war illness.
10. The method of claim 5 wherein said condition is breast implant sickness syndrome.
- 5 11. The method of claim 5 wherein said condition is inflammatory bowel disease.
12. The method of claim 5 wherein said condition is autism.
- 10 13. The method of claim 5 wherein said condition is Sjogrens syndrome.
14. The method of claim 5 wherein said condition is Lyme disease.
- 15 15. The method of claim 5 wherein said condition transient ischemic attack.
16. The method of claim 5 wherein said condition is attention deficit disorder.
- 20 17. The method of claim 5 wherein said condition is Alzheimer's disease.
18. The method of claim 5 wherein said condition is Parkinson's disease.
19. The method of claim 5 wherein said condition is fetal wastage syndrome.
- 25 20. The method of claim 5 wherein said condition is a cardiovascular disease.
- 30 21. The method of claim 3 wherein said grouping of blood tests comprises:
a. a test to determine the level of, activity of, or mutations in the gene

for, or genes affecting the control or levels of protein C;

- b. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control or levels of protein S;
- c. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control or levels of antithrombin;
- d. a test to determine the level of activated protein C resistance, or mutations in the genes for factor V or protein C or other genes that modulate activated protein C resistance;
- e. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control and levels of prothrombin;
- f. a test to determine the level of, activity of, or mutations in the gene for, or genes affecting the control and levels of plasminogen activator inhibitor-1;
- g. a test to determine the level of, or mutations in the gene for, or genes affecting the control and levels of lipoprotein (a);
- h. a test to determine the level of, or mutations in the genes affecting the control, metabolism and levels of homocysteine.

22. The method of claim 21 wherein said condition is diagnosed by an abnormality in at least one of said tests in said grouping of blood tests indicating the presence of procoagulant genetic and metabolic factors that may be associated with, or predispositional for, activation of the coagulation response.

23. The method of claim 22 wherein said condition is chronic fatigue syndrome.

24. The method of claim 22 wherein said condition is fibromyalgia.

25. The method of claim 22 wherein said condition is multiple sclerosis.

26. The method of claim 22 wherein said condition is gulf war illness.

27. The method of claim 22 wherein said condition is breast implant sickness syndrome.

28. The method of claim 22 wherein said condition is inflammatory bowel
5 disease.

29. The method of claim 22 wherein said condition is autism.

30. The method of claim 22 wherein said condition is Sjogrens syndrome.

31. The method of claim 22 wherein said condition is Lyme disease.
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32. The method of claim 22 wherein said condition transient ischemic
attack.

33. The method of claim 22 wherein said condition is attention deficit
15 disorder.

34. The method of claim 22 wherein said condition is Alzheimer's disease.

35. The method of claim 22 wherein said condition is Parkinson's disease.
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36. The method of claim 22 wherein said condition is fetal wastage
syndrome.

37. The method of claim 22 wherein said condition is a cardiovascular
25 disease.

38. The method of claim 5 wherein said low dose anticoagulant therapy is
heparin.

39. The method of claim 5 wherein said low dose anticoagulant therapy is
30 heparin followed by warfarin.

40. The method of claim 5 wherein said low dose anticoagulant therapy is warfarin.

41. The method of claim 22 wherein said low dose anticoagulant therapy is
5 heparin.

42. The method of claim 22 wherein said low dose anticoagulant therapy is heparin followed by warfarin.

10 43. The method of claim 22 wherein said low dose anticoagulant therapy is warfarin.

44. The method of claim 21 wherein an asymptomatic person is diagnosed
by an abnormality in at least one of said tests in said grouping of blood tests indicating
15 the presence of procoagulant genetic and metabolic factors that may be associated
with, or predispositional for, activation of the coagulation response.